DH-PFS4420-16GT-DP

20-port Gigabit Industrial Switch with 16-port PoE (Managed)

PoE 2.0

* The parameters and datasheets below can only be applied to V2.0 (version 2.0)

- All-gigabit port design
- Supports IEEE802.3af, IEEE802.3at, Hi-PoE and IEEE802.3bt (red port) standards
- 250 m long-distance PoE transmission (10 Mbps)
- PoE Watchdog
- Supports STP, RSTP, and MSTP
- IEEE802.1Q-based VLAN configuration
- Manual link aggregation and static LACP
- Wide voltage design (9 V–57 V)
- Desktop mount and DIN-rail mount

System Overview

The device is a layer-2 switch. Equipped with high performance switching engine and large buffer memory, it features low transmission delay and high reliability. The solid and sealed all-metal case design and efficient surface heat dissipation make it can work in the environment from –40 °C to +75 °C. The protection for power input end overcurrent, overvoltage and EMC can effectively resist the interference from static electricity, lightning, and pulse. Redundant power supply guarantees stable operation for the system. With Telnet, WEB management, SNMP and other functions, the device can be remotely managed. It can directly connect to iLinks-View.

Functions

PoE Watchdog
Adopts the innovative PoE Watchdog. PoE Watchdog can be switched on by dialing or turning on the WEB page switch. It enables the switch to automatically detect port status and restart failed ports to recover connection in case of IPC connection exception. This enables intelligent operation and maintenance management in its truest sense, effectively reducing manual maintenance costs.

Long-distance PoE
By dialing or enabling long-diatance transmission on the WEB interface, the transmission distance of a PoE port can be up to 250 m, meeting the requirements of wired transmission (bandwidth reduced to 10 Mbps).

Red Port 90W
The red ports support IEEE802.3af, IEEE802.3at, Hi-PoE and IEEE802.3bt standards, with a maximum output power consumption rate of 90W per port. Suitable for powering high-power devices.

Wide Operating Temperature
Supports working in temperatures between-10 °C to +55 °C. It has built-in professional mine-proof circuits, which effectively reduce the impact of thunderstorms on network systems and improves system robustness, allowing it to readily adapt to harsh environments.

Redundant Power Supply
Redundant power supply ensures that the device is still powered when one power port malfunctions, vastly improving device reliability.

Fast Loop Convergence
Supports ERPS protocol to provide loop protection. Convergence time can be no more than 50 ms when a link disconnection occurs.

Scene

The device is applicable for use in different scenarios, including corridors and offices.

Technical Specification

Hardware

PoE	Yes
Ethernet Port	16
Optical Port	4
Ethernet Port Speed	10 Mbps/100 Mbps/1000 Mbps
Optical Port Speed	1000 Mbps
Console Port	1
Power Supply Mode	48 V–57 VDC (Power supply module not included)
Operating Temperature	–40 °C to +75 °C (–40 °F to +167 °F)
Operating Humidity	5%–95% (non-condensing)
Power Consumption	Idling: ≤ 15 W Full load: 240 W

Performance

Layer	L2
Managed	Yes
Switching Capacity	54 Gbps

Packet Forwarding Rate	28.28 Mpps
Packet Buffer Size	4 Mbits
Communication Standard	IEEE 802.3; IEEE 802.3u; IEEE 802.3x; IEEE 802.3ab; IEEE 802.3z; IEEE 802.3ad
MAC Table Size	8K

Function

PoE Protocol	IEEE 802.3af (PoE); IEEE 802.3at (PoE+); Hi-PoE; IEEE 802.3bt
PoE Power	Port 1-2: ≤ 90 W Port 3-16: ≤ 30 W Total: ≤ 240 W
PoE Power Consumption Management	Power consumption management PoE power on and off Power off when PoE power is overloaded Green PoE
PoE Pin Assignment	1, 2, 4, 5 (V+), 3, 6, 7, 8 (V-)
Long Distance PoE Transmission	Yes
Jumbo Frame	9,000 bytes
Spanning Tree Protocol	ERPS
VLAN Function	802.1Q
Flow Control	IEEE 802.3X-based flow control
Link Aggregation	Static link aggregation; LACP
Port Mirroring	Multiple-to-one port mirroring
Multicast	Yes
DHCP Function	DHCP client
Security	IEEE 802.1x-based port authentication Port-based MAC address binding
QoS	Priority, WRR 802.1P, DSCP
Maintenance	One-click restore to default settings Uploading/downloading configuration files Software upgrade System logs
Device Management	Web; SSH; SNMP

General

Statics Protection	Air discharge: 15 kV Contact discharge: 8 kV
Lighting Protection	Common mode: 6 kV Differential mode: 4 kV
Net Weight	1.35 kg (2.98 lb)
Gross Weight	1.75 kg (3.9 lb)
Product Dimensions	125.4 mm × 75.0 mm × 175.0 mm (4.9" × 3.0" × 6.9 ") (L × W × H)
Packing Dimensions	325 mm × 190 mm × 125 mm (12.8" × 7.5" × 4.9") (L × W × H)

Transmission Performance:

Switch power supply voltage 53 V.
CAT5E/CAT6. Max. DC resistance < 10 Ω/100 m

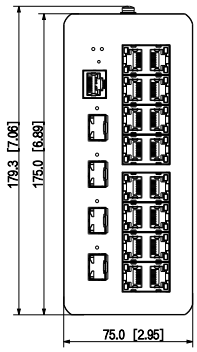
Cable(m)	Load Capacity(W)	Bandwidth(Mbps)
IEEE802.3bt 90 W		
100	71.3	100
150	62	10
200	51	10
250	40	10
Hi-PoE 60 W		
100	53	100
150	50	10
200	47	10
250	37	10
IEEE802.3at 30 W		
100	25.5	100
150	25.5	10
200	25.5	10
250	25.5	10

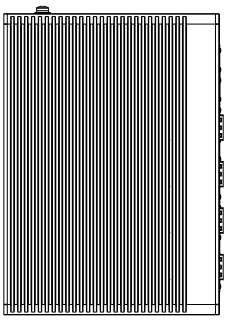
Note: Data from this table was collected by Dahua test lab and is for reference only . If there is inconsistency between field application and the table, the field result shall prevail.

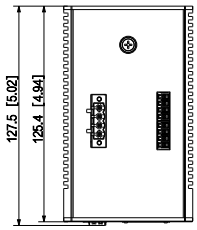
Ordering Information

Type	Model	Description
SFP module	GSFP-850-MMF	1.25G, 850 nm, 550 m, LC, Multi-mode
	GSFP-1310-20-SMF	1.25G, 1310 nm,20 km, LC, Single-mode
	GSFP-1310T-20-SMF	1.25G, 1310/1550 nm, 20 km, LC, Single-mode
	GSFP-1310R-20-SMF	1.25G, 1550/1310 nm, 20 km, LC, Single-mode
Power Supply Module	EDP-240-48	240 W, 100–240 VAC-48 V 5 A

Dimensions (mm[inch])







Installation